

Annual report on riverine inputs and direct discharges to Convention waters

CP (Country name):

FRANCE

Year:

2016

Reporting authority (to which any further enquiry should be addressed):

Name of authority:

MEEM/DGALN/DEB

Sous-direction du littoral et des milieux marins, bureau des milieux marins

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Nb : The sources for all the graph and maps are:

Sources: Agences de l'eau, 2016 – banque Hydro, 2016 – MEEM. Processed by MEEM/CGDD/SOeS.

Information: The purpose of this template is to provide the OSPAR Commission with an assessment of this year's waterborne inputs to Convention waters, and an up-to-date description of the methodology used. "This year" is the calendar year in retrospect (e.g. data from January – December 2015 is reported in autumn 2016, and so on).

The template should be submitted to the Secretariat or RID Data Center by 1 November (30 November for Denmark only).

This template and the excel sheet templates (separate file) comprise the two mandatory submissions each year. These templates will be sent to all CPs in early September.

Part I: Information on results from the monitoring

NB: New this year: Please fill in the latest year's data (2016) in the excel file named "<name of CP> 1990-2015 charts and tables", and update the corresponding charts.

Below, please give any comments on results from the monitoring that need to be highlighted, including general trends in loads and concentrations, but also any unusual concentrations or specific episodes; the occurrence of floods, droughts, etc. Also comment on missing data or other quality issues of the data.

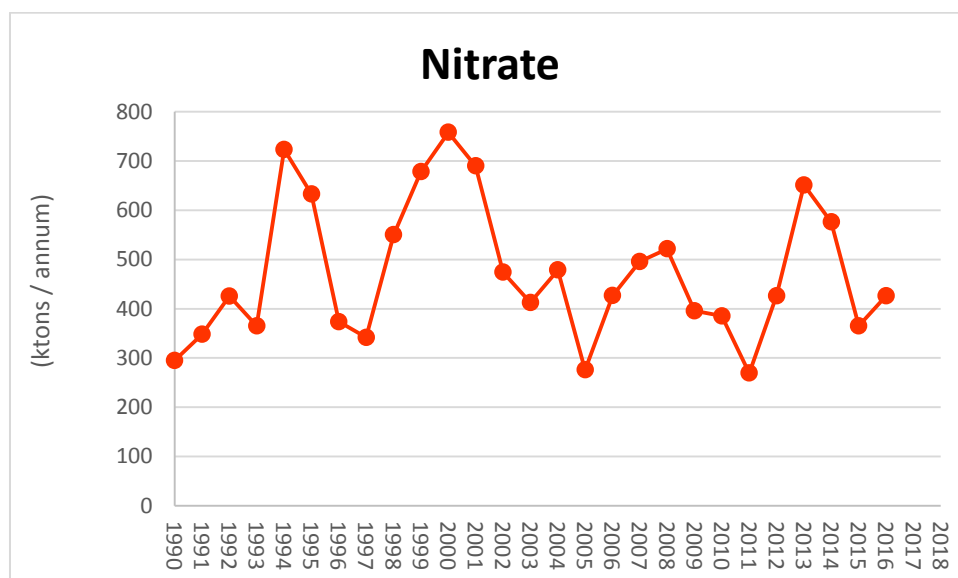
If any statistical trend analyses have been carried out, please include these where appropriate, or submit as an appendix.

Use the number of pages needed.

i. Riverine inputs

(All charts are for Total France-data)

Figure 1: Evolution of the NO₃-N and NH₄-N inputs since 1990



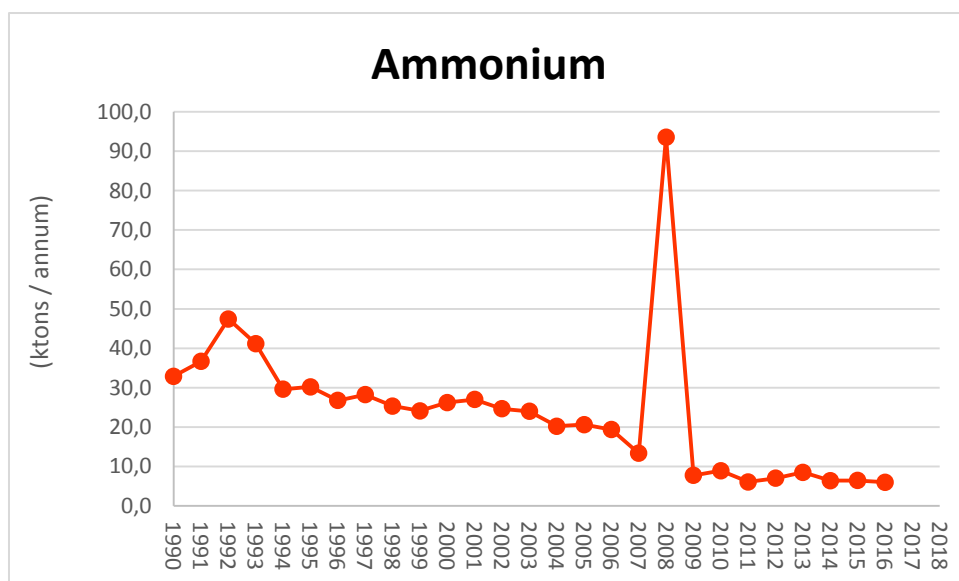
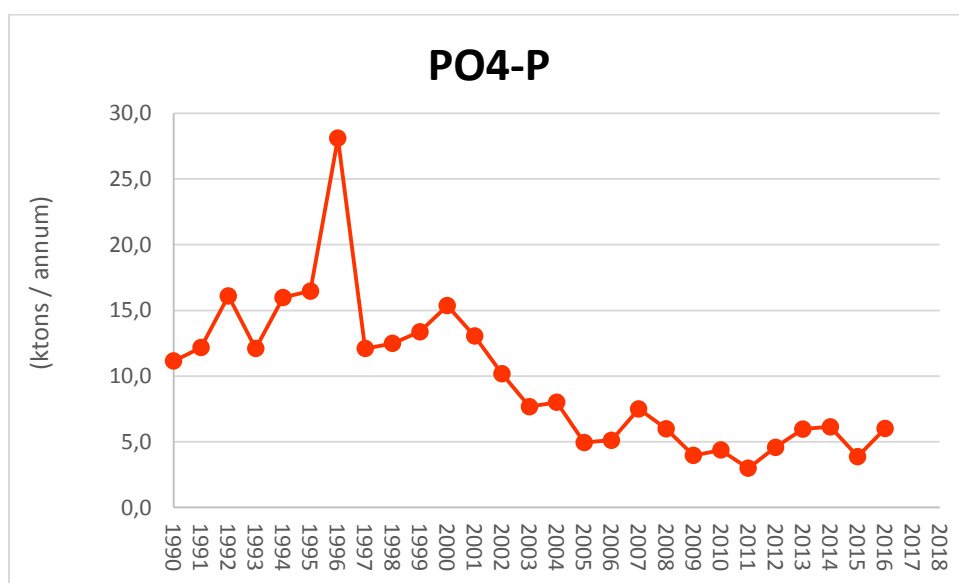


Figure 2: Evolution of the PO₄-P and total P inputs since 1990



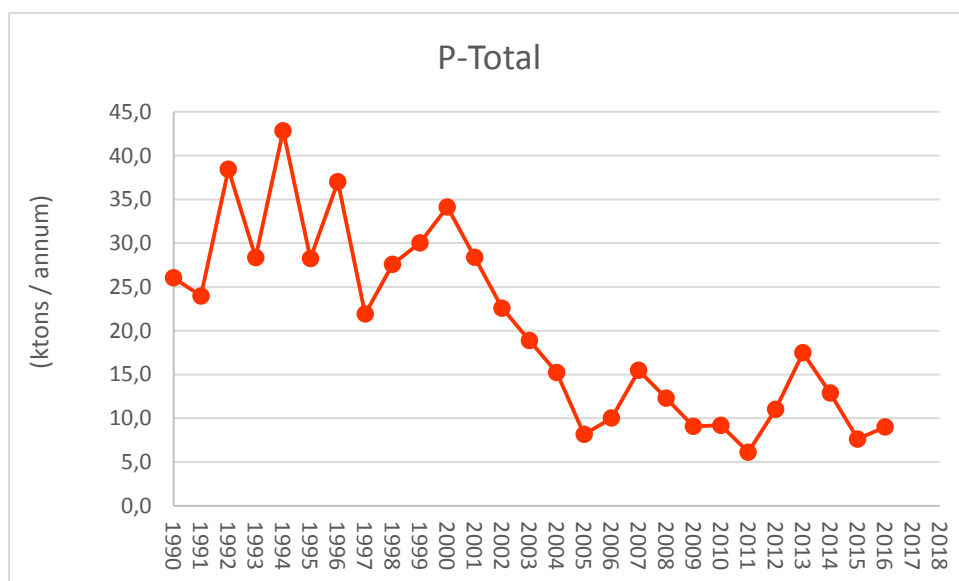


Figure 3: Evolution of the SPM inputs since 1990

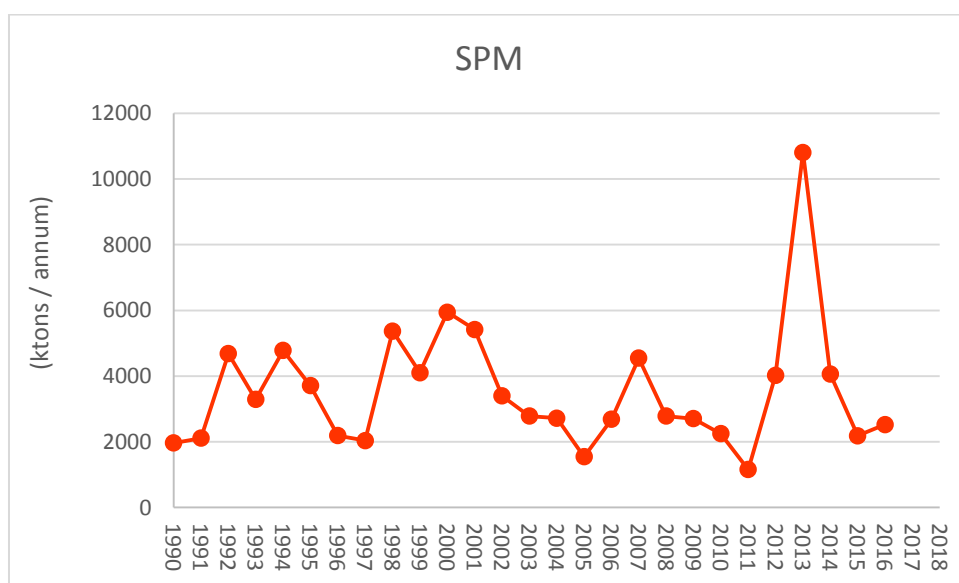
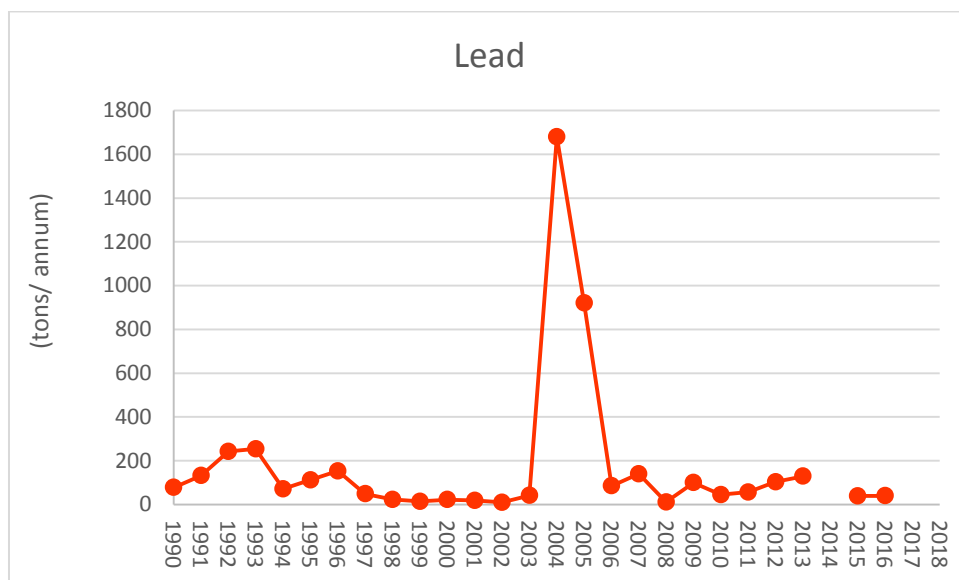
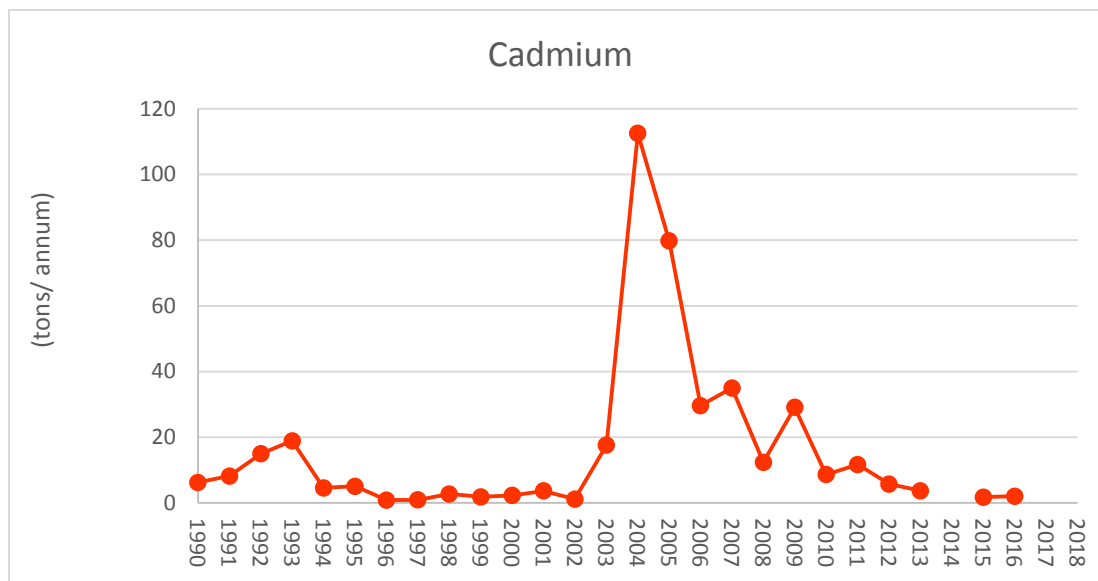
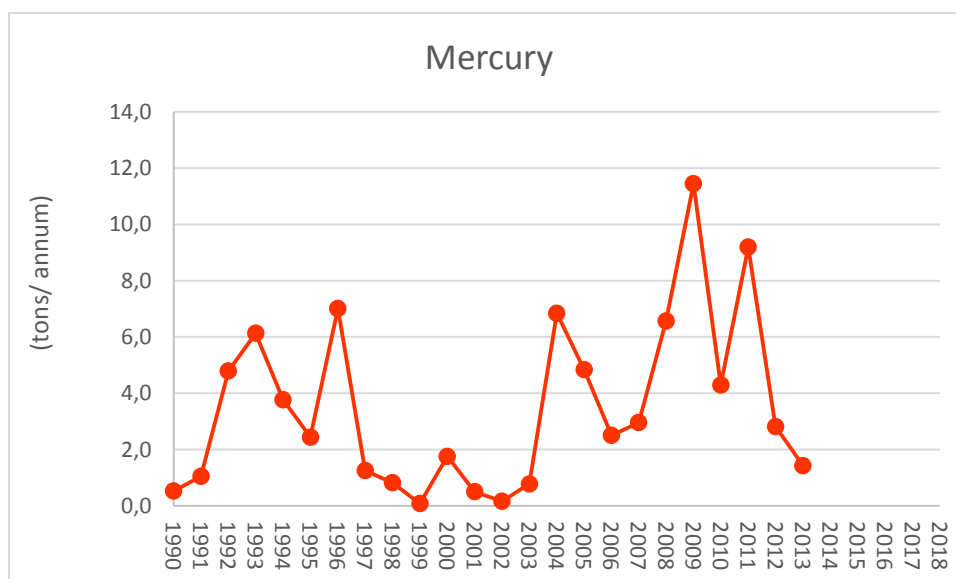


Figure 4: Metals inputs since 1990





ii. Direct discharges

No estimation of direct discharges, regarding the difficulties to gather the raw data compared to the real proportion of direct discharges in the overall loads (less than 10%).

iii. Unmonitored areas

The results are presented in the section i as a part of riverine inputs.

iv. Overall loads

They are considered as equivalent to riverine inputs since the direct discharges are estimated in minority.

Part II: Methodology

A. Overall information on changes in the monitoring methods

Has the monitoring programme been changed this year?

No: no change

Yes:

If yes, please indicate which parts of the programme that have changed and give additional comments below the table when needed:

Methodology of components	Main change since last year
Direct discharges	
- Sewage	

- Industry	
- Aquaculture	
- Other	
Riverine monitoring	
Unmonitored areas	
Analytical methods or LOD/LOQ	
Water discharge	
Other	

Information: All details on this year's methodology should be given in the following sections. Please give a description of the methods used even if the methodology does not differ from previous years. This is necessary for keeping track of each year's methodology in the archives.

B. Direct discharges (Tables 5a-5e)

Information: Please give a comprehensive description of the methods used for determining direct discharges. If the methodology differs from the recommended methodology of the RID Principles, please give comments and explanations for this deviation.

The methodology description should, to the best possible extent, give information on:

- Which types of point sources are included (e.g. all industries or only the larger ones);
- General geographical location of point sources (e.g. are point sources downstream of the sampling sites in monitored rivers included? How far up the river mouths are point sources in unmonitored areas included, or are these not included at all?)
- Sampling procedures or measurements/calculations used.
- If possible, a list of analytical methods used, including the LOQ. How are values below LOQ dealt with when calculating inputs? Give comments if LOQs are higher than recommended in the RID Principles.
- If any inter- or extrapolation of data series is done, please explain the method.
- Give any other relevant information.

Use the number of pages needed.

No estimation since the part of direct discharges is considered as negligible compared to the riverine inputs.

- i. Sewage
- ii. Industry
- iii. Aquaculture
- iv. Urban storm runoff
- v. Any other direct discharges reported

Determinand coverage for direct discharges (indicate with an X):

Determinand	Sewage	Industry	Aquaculture	Storm/urban	Other
Tot-P					
PO ₄ -P					
Tot-N					
NH ₄ -N					
NO ₃ -N					
SiO ₂					
TOC					
SPM					
Conductivity					
pH					
As					
Cd					
Cu					
Cr					
Hg					
Ni					
Pb					
Zn					
PCB					
Lindane					
Other (please specify)					

C. Riverine inputs (Tables 6a-6c)

Information: Please give a comprehensive overview of the methods used for riverine inputs. If the methodology differs from the recommended methodology of the RID Principles, please give comments and explanations for this deviation.

The methodological description should cover the following items (if there are rivers with differing monitoring procedures, please provide a description for each type):

Use the number of pages needed.

i. Station network¹

As indicated in the previous reports, the monitoring and gauging stations were chosen according to the RID principles. The monitoring stations are under the responsibility of Water Agencies, that carry out the monitoring program on a delimited basin. Our cutting in sub-regions is based on this organisation: Artois-Picardie, Seine-Normandie, Loire-Bretagne and Adour-Garonne are the four Water Agencies concerned by OSPAR.

The analyses are made for WFD and then are used also for Ospar. Most of the gauging stations are under the responsibility of French local authorities, some of them depend also from land use management companies ; the data are compiled in the same national reference database (banque HYDRO).

ii. Sampling methodology

Pas de changement par rapport aux années précédentes

The methodology has not been changed this year

iii. Sampling frequency

Pas de changement par rapport aux années précédentes

The methodology has not been changed this year

iv. Chemical parameters and their analytical method, incl. LOD/LOQ

Pas de changement par rapport aux années précédentes

Pas de changement par rapport aux années précédentes

The methodology has not been changed this year

v. Values below LOD/LOQ²

Pas de changement par rapport aux années précédentes

The methodology has not been changed this year

vi. Water discharge³

The methodology has not been changed this year

The evolution of N-Total seems suspicious; this data remains to be confirmed

vii. Calculation method for determining loads

Pas de changement par rapport aux années précédentes

The calculation method has not been changed this year

Determinand coverage for riverine inputs (indicate with an X):

Please fill in the table as far as possible. If different rivers are monitored differently (e.g. less load-bearing rivers are monitored with fewer parameters), please indicate this/prepare a separate table.

Determinand	Analytical method	LOQ*	Comments
Tot-P		0.01 mg/l	2016: 99 % quantified median LoQ: 0.01 mg/l
PO ₄ -P		2016: 0.003-0.02 mg/l PO ₄	2016: 95 % quantified, median LoQ: 0.006 mg/l PO ₄
Tot-N	Not applicable		
NH ₄ -N		2016: 0.003-0.038 mg/l NH ₄	2016: 94 % quantified, median LoQ: 0.007 mg/l NH ₄
NO ₃ -N	Not applicable, all the analyses are quantified		
SPM		2 mg/l	2016: 93 % quantified
Cd		2016: 0.01-0.5 µg/l	2016: 37 % quantified, median LoQ: 0.01 µg/l
Cu		2016: 0.1-1.0 µg/l	2016: 94 % quantified, median LoQ: 0.5 µg/l
Hg		2016:	2016:

² Explain how values below LOQ/LOD are dealt with when calculating loads. Give comments if LOQs are higher than recommended in the RID Principles.

³ Could include information on whether the discharge is monitored or modelled (if modelled, please state which model); monitoring frequency, etc.

		0.01-0.015 µg/l	0.7% quantified, median LoQ: 0.015 µg/l
Pb		<u>2016:</u> 0.05-0.5 µg/l	<u>2016:</u> 53 % quantified, median LoQ: 0.1 µg/l
Zn		<u>2016:</u> 0.9-5 µg/l	<u>2016:</u> 69 % quantified, median LoQ: 0.9 µg/l
Lindane		<u>2016:</u> 1-10	<u>2016:</u> 1.4 % quantified, median LoQ: 1.33 µg/l
Other (please specify)			

* Please remember to give units.

D. Unmonitored areas (Table 6d)

Information: Please give a thorough description of the method used for estimating loads from unmonitored areas. If a model is used, please give information on and *references* to this model.

Use the number of pages needed.

i. Methodology

The inputs from the unmonitored areas are estimated. As previous years, in regards with geographical criteria (land cover...), a reference monitored tributary is determined for each unmonitored area to achieve an estimation of the input. The final estimation is made thanks to the values of drainage basins.

ii. Proportion of unmonitored area

Please fill in the table below:

	km ²	%
Total area of your country	552 000	
Total area draining to the OSPAR Maritime Area	382 161	100% *
Monitored area draining to the OSPAR Maritime Area	322400.9	84.4%
Unmonitored area draining to the OSPAR Maritime Area	61151.5	15.6%

* The total land area *draining to the OSPAR Maritime area* is set to 100%. The proportions of monitored and unmonitored area should be given relative to this.

E. Quality assessment

Information: Please give relevant information on how quality assessment is carried out.

The raw data are assessed by the producers (Water Agencies for the monitoring stations and local authorities for gauging stations). The coherence of inputs is controlled each year by comparison to the flows and the previous input: *The evolution of N-Total seems suspicious; this data remains to be confirmed*